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**Aortic Valve Sparing Surgery in Marfan Syndrome Patients**

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Background: Marfan syndrome patients are referred for cardiac surgery due to root aneurysm with or without aortic valve (AV) regurgitation. Because these are young patients frequently presenting with normal appearing aortic cusps, valve sparing is often recommended. However, due to the genetic nature of the disease, the durability of such surgery remains uncertain. We compared our mid- to long-term experience with valve sparing surgery in both Marfan and non-Marfan syndrome patients.

Patients and methods: From January 2004, 54 patients with Marfan syndrome underwent surgery in our department, of whom 27 underwent AV sparing surgery. We compared the early and late clinical outcomes to a group of 89 non-Marfan patients who had undergone surgery at the same time period. Marfan patients were significantly younger (33±13 vs 56±16 years), and had a higher percentage of root aneurysm, compared to ascending aorta aneurysm in the non-Marfan group. More patients in the non-Marfan group presented with acute aortic dissection (p=0.023).

Results: There was 1 early death in the Marfan group and 2 in the non-Marfan group (p=NS). There was no significant difference in other early major complications, which were few in both groups. At follow-up (ranging up to 8 years with a mean of 34±25 months), there were no late deaths in the Marfan group and 8 (9%) in the non-Marfan group. Ninety-three percent and 78% of the patients were in NYHA functional class I-II in the Marfan and non-Marfan groups respectively. 1 Marfan and 3 non-Marfan patients required re-operation during follow-up. Freedom from recurrent AR >3+ was 92% in both groups.

Conclusions: AV sparing surgery in Marfan syndrome patients is safe and produces good mid- to long-term clinical outcomes in this group of patients.